

area to the costa. There is a similar poverty of spots on the upper wings, and the upper surface is also almost devoid of markings. The lower figure represents a normal male specimen for comparison. I may add that all through the very interesting mountain region of South-central France the orange-red and orange-brown coloration, both in *Melitæa* and in *Argynnis*, tends to a clear cold clay-yellow-brown, especially in *A. niobe*, of which species the ab. *eris*, as elsewhere in the more elevated regions of France and Switzerland, appears to predominate. Specimens of *didyma* from Cortina-di-Ampezzo exhibit a similar tendency; the fiery foxy brown of the wing pigment being in my series much subdued and deadened. Both in the male and female, but especially in the latter, the aberrant tendency is most marked, whether on the upper or under side, while I have seen specimens of *Melitæa cinxia*, notably some exhibited by Mr. H. Goss at the Entomological Society last year, nearly approaching the extreme form of *didyma* which I have figured.

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TWO NEW AUSTRALIAN CULICIDS.

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THE following are descriptions of two new Culicids recently sent me by Dr. Bancroft from Queensland. There is at present a plague of mosquitoes in Queensland and other parts of Australia, the two commonest species being *Culex annulirostris*, Skuse, and *C. marinus*, Theobald.

Genus MACLEAYA, nov. gen.

Intermediate between *Stegomyia* and *Culex*.

Head covered with flat scales over most of its surface, but with a median line of narrow-curved scales. Palpi short in the female, three-jointed, with two basal constrictions; apical joint minute, penultimate joint large, swollen apically and truncated; the ante-penultimate broad apically, becoming narrower and swollen again basally, two basal constrictions looking almost like joints. The apex of the penultimate joint is studded with round spots. Palpi long in the male, longer than the proboscis, the two apical joints short, rather swollen, also the apex of the ante-penultimate; hair-tufts rudimentary. Thorax with narrow-curved scales; scutellum with small flat scales on the median lobe, narrow-curved ones on the lateral lobes.

This genus differs from *Stegomyia*, to which it bears a strong superficial resemblance, in having narrow-curved scales on the centre of the head and on the lateral lobes of the scutellum.

A single species only is known.

Macleaya tremula, n. sp.

Head silvery grey, with two large prominent black patches; proboscis black, unbanded. Thorax deep brown, with indistinct dull golden lines, the lateral ones over and in front of the roots of the wings curved, and white-scaled prothoracic lobes; pleuræ testaceous brown, with small white scales; scutellum brown, with white and black scales to the median lobe, white to lateral lobes. Abdomen black, the segments with median, basal, and lateral basal spots, the median creamy, the lateral white; venter with basal creamy bands. Legs black, the fore and the mid with narrow white basal bands to the metatarsi and front tarsals; the hind legs with a broad white basal band to metatarsi and first and second tarsals, third tarsal all black, fourth all white. Wings transparent.

♀. Head black, with flat black scales forming a large patch on each side, then a small grey patch, another small black one, and then more grey scales outside; the middle of the head with silvery-white narrow-curved scales, and a silvery-white line around the eyes; numerous small black upright forked scales over the occiput; palpi black with grey tips; clypeus and proboscis black; antennæ black, the base of the second joint bright testaceous, the second joint with small grey scales. Thorax deep brown, covered with very small narrow-curved bronzy-brown scales, with more or less pronounced irregular lines of pale golden scales; the line over and in front of the root of each wing curved; the golden scales are broader than the dark ones; on each side in front is a short line of white scales, and the prothoracic lobes are covered with similar coloured scales; in front of the scutellum are irregular (often indistinct) short lines of larger pale creamy scales, and some long backwardly projecting black ones; scutellum testaceous brown, the mid lobe with small flat grey scales in the middle, black ones at the sides, the lateral lobes with narrow-curved whitish ones; border-bristles large and black, there are also very large black ones on the mesonotum; metanotum black; pleuræ brown, with patches of flat grey scales. Abdomen black, the segments with basal median creamy spots, and basal lateral silvery white ones; the last segment (sometimes the last two) without the median spot; first segment testaceous, with black scales; border-bristles jet-black; venter white at the base, some of the segments with basal white areas, the apical segments black; genitalia white-scaled. Legs black, banded; coxæ pale, with patches of white scales, very long; femora black above, white ventrally; knee spot white; tibiæ black; in the fore and mid legs the metatarsi and first tarsal joints have narrow white basal bands, last three tarsi black; in the hind legs the metatarsi, first and second tarsal segments have broad snowy-white basal bands, the third tarsal is all black, and the fourth all white; ungues of all three pairs of legs equal and simple. Wings with brown scales, the lateral scales long and thin; the first submarginal cell longer and narrower than the second posterior cell, its base nearer the base of the wing, its stem less than half the length of the cell, stem of the second posterior cell as long as the cell; posterior cross-vein longer than the mid, about one and half times its own length distant from it; first longitudinal

and the subcostal densely scaled with large dark brown spathulate scales; fringe brown; base of the wing pale; halteres pale ochraceous. Length, 4.5 mm.

♂. Palpi black-scaled, apical joint white, base of penultimate joint white, also apex of the ante-penultimate, a small pale band about the middle of the long ante-penultimate joint, a few prominent black bristles on the last two joints, not forming regular hair-tufts, a distinct black spine at the apex of the ante-penultimate joint; the apical joint about half the length of the penultimate; plume-hairs of antennæ deep brown. Thorax as in the female. Abdomen narrow, brown, with either basal lateral white spots or basal white bands, which spread out laterally; hairy. Basal lobes of the genitalia broad and truncated. Legs ornamented as in the female; fore and mid unguis unequal, the larger uniserrated; hind equal and simple. Length, 4.5 mm.

Hab. South Queensland.

Time of capture. February.

Observations.—Described from a series of dried and spirit specimens collected and bred by Dr. Bancroft. This species was taken breeding in a fresh-water well near Dr. Bancroft's house. It does not appear to bite the human subject. Dr. Bancroft bred them out from larvæ in conjunction with those of *S. notoscripta* and *C. fatigans*. It is a very marked species, easily told by the leg-banding, thoracic and abdominal ornamentation. The thorax is subject to some variation, owing partly to denudation of the golden scales. The abdomen in the male is also variable, the lateral spots often merging and forming complete basal white bands.

Genus STEGOMYIA, Theobald (Mono-Culicid. i. p. 283, 1901).

Stegomyia punctolateralis, n. sp.

Thorax black, with dense bronzy-brown scales, unadorned except for pale scaled lines laterally; pleuræ snowy white, the white extending on to the mesonotum as a broad white line in front of the roots of the wings, and a narrower one just over the roots of the wings; prothoracic lobes white, *separated by a black curved line from the mesonotum*. Proboscis black, unbanded. Abdomen black, with apical white lateral spots; venter mostly white. Legs black, unbanded; coxæ and venter of femora, tibiæ, and to some extent the venter of the metatarsi of hind legs, white.

♀. Head covered with flat bronzy-brown scales, and a pale almost white border round the eyes. Palpi, proboscis, clypeus, and antennæ deep black. Palpi slightly clavate, much contracted at the base, apical joint minute. Thorax black, with bronzy-brown narrow-curved scales, paler almost grey ones behind and at the sides forming lateral pale lines, and a narrower one just over the roots of the wings; prothoracic lobes white scaled, separated from the rest of the thorax by a prominent black line; pleuræ densely white scaled; scutellum with small flat grey scales and brown border-bristles, four to the mid

lobe; metanotum deep brown. Abdomen deep brown with violet reflections, in some lights under the microscope bright violet, each segment with prominent apical later creamy spots, which in some segments spread almost across the apical borders so as to form prominent apical pale lines, but they never quite meet, except in the penultimate segment; the first segment testaceous, with large dense black scales in two confluent spots, with brown bristles; border-bristles very short, pale brown, shining apically. Venter creamy white; the apical spots are very pronounced on the ventral surface of dried specimens. Legs jet-black; venter of femora, of tibiæ and hind metatarsi silvery white; ungues small, equal, and simple. Wings with brown scales; fork-cells of moderate length, the first submarginal considerably longer and narrower than the second posterior cell, its base nearer the base of the wing; stem of the first submarginal cell more than half its length; stem of the second posterior nearly as long as the cell; posterior cross-vein about twice its own length distant from the mid cross-vein. Halteres with dull testaceous stem and fuscous knob. Length, 4.5 mm.

♂. Thorax and abdomen as in the female, but the abdomen narrower, and the apical lateral spots not quite so prominent. Basal lobes of genitalia densely bristly, bristles large and arise from distinct papillæ; claspers long and thin, simple. Antennæ deep brown, with deep brown plume-hairs, pale banding more or less noticeable; proboscis black; palpi shorter than the proboscis, deep blackish brown, no "hair-tufts," the last two joints of nearly equal length, the apical one slightly shorter, and with terminal bristles. Legs as in the female; fore ungues unequal, the larger uniserrated, the smaller simple; mid ungues unequal, both simple; hind legs very small, equal, and simple, much curved. Wings with brown scales; the first submarginal cell longer and narrower than the second posterior cell, the base nearly level with that of the second posterior; stem of the first submarginal about one-third of the length of the cell; stem of the second posterior cell about two-thirds of the length of the cell; posterior cross-vein considerably longer than the mid, and more than twice its length distant from it. Length, 5.5 mm.

Hab. South Queensland.

Time of capture. January.

Observations.—Described from a series of dried and spirit specimens collected and bred by Dr. Bancroft. It is a very marked species, one striking characteristic being the black curved line behind the white-scaled prothoracic lobes. The white lateral apical spots are also characteristic. Dr. Bancroft kept this species alive for a month in confinement, and during that time they bit on three occasions.
